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FILIGREE.

BY

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Silver and gold have two properties in common, their malleability and ductility, which have led to their employment in the manufacture of the most delicate and exquisite ornaments. Their almost infinite extensibility, their capability of being drawn out into the thinnest possible wires or strips, renders them wonderfully adapted to this purpose. The monk Theophilus, in the twelfth century, describes the process of drawing out the wire through perforated pieces of iron; but the art which is founded on their employment is more than a thousand years older.

It is remarkable that in the most ancient specimens of filigree, or granulated threads, which have been preserved to modern times, there is found a delicacy and perfection of workmanship which has never been since surpassed or even equalled, a proof certainly that the art reaches still further back into an unknown antiquity, having even then a technical history. For even those most ancient relics which belong to the Etrurians and the Greeks show an acquaintance with the different branches in which the art is divided, as they consist of numerous ornamental objects found in tombs and still found there, ear-rings, necklaces, diadems, brooches, clasps, rings, &c. &c.

The fundamental element of the art is a wire or flat thread drawn out into a very narrow strip, which is so employed that its sharp edge marks the design. The designs are formed by bending these wires, threads, or strips, and fastening them, according to the fancy of the artist, in certain lines and figures. This may be done on a metal plaque which serves as a solid ground, which may also be removed after having served its pur-

pose in preparing the design, and giving it a temporary support, and then the whole work will appear pierced like a light net-work framed by a more solid metal band. In both cases the wires must be held together and fastened by means of soldering, either on the whole surface, or in the second case at the ends as well as the points where the lines of the design touch.

But so far neither does the workmanship or the technic come up to the proper denomination of granulated threads. Granulation must be added and adapted to the wire and strips. This may be done in two ways; either the strip is worked with the file on the upper and visible edge, so that it has the appearance of being thickly covered with grains in its whole length, a method which may aptly be termed a counterfeit, as it only apparently produces the grains; it occurs however together with the other method, both at the same periods and with the same nations, and on the same objects also. The second method, which is by far more difficult, provides the wire with real grains of metal, which must be soldered on to them with great care and art, indeed with the minutest exactness, in order that neither the appearance of regularity nor the charm of elegance may be lost.

But this is not the only difficulty in the process; another is the production of the grains of the necessary delicacy. This is usually obtained, as Cellini also indicates, by pouring molten silver or gold into powdered charcoal. A good idea can be formed of the wonderful delicacy that can be attained in this way, when the greatest possible carefulness is employed, by an examination of the ornamental works of the Etrurians and Greeks.

These works seldom show filigree in the free, pierced network, for which indeed the extraordinary fineness of the threads and grains does not afford sufficient support, but more frequently on a basis of the same metal, either a flat, curved or any other surface according to the shape of the ornament. Sometimes also, several granulated wires soldered closely together form surfaces or strips, which are again separated à jour by a filigree band running zigzag between them and connecting them. On their bases, these granulated wires assume the diversified figures of the Etrurian and Grecian ornaments, they run in undulations, or in rows, form rosettes, or serve as decorations for flowers and other figures composed of little gold-plates. These antique ornaments are wonderfully varied and rich in form, and it is the filigree which gives them their most delicate and perfect finish.

There is yet another peculiar way in which antique ornaments make use of this technic, though we cannot call it properly filigree, as neither wire nor threads are employed, but only the grains. With these whole surfaces, both curved and plane, are densely covered, by which an appearance is obtained of a velvet-like but shining surface of indescribable softness, the lights and shades playing in different colours. The grains are disposed with great regularity and neatness, and at the same time with a certain freedom, so that it appears an admirable piece of handiwork. This method serves to produce a rich alternation with the smooth parts, such as velvet and satin would show when employed together; or spherical parts, flowers and globes, or semiglobes are made to project from the flat surface as frameworks or settings, forming figures with them, as, for example, zigzags on smooth and shining surfaces. In this case, when the grains delineate or fill in a certain design or figure, they are usually of a somewhat larger size, but always of the same extraordinary regularity and neatness.

We have no intention of writing a history of this kind of ornament, and therefore we briefly observe that with the decay of Grecian civilisation this art also disappeared among the civilised nations of the west, although, as we shall presently see, it continued as a popular tradition, and was at the same time carried on in other parts of the world. The Byzantines, who were the next heirs of Grecian civilisation, paid much less regard to filigree, using the metal threads chiefly as a mere groundwork for their Email cloisonné. In this kind of Enamel the outlines of the designs, figures or ornaments, are formed by fine bands of metal fastened on the plate; the spaces between them are filled in with the coloured enamel material poured in when molten by the fire. So here the Enamel is the principal thing, and the metal threads, which in the Grecian ornaments of this nature form the real artistical element, appear only as expedients to hold and separate the colours. Enamel, it is true, is also met with among antique jewellery, but not frequently, and is used very sparingly. Granulation also, is naturally incompatible with the Byzantine cloisonné.

In the Romanesque period of art, the goldsmiths of the west, though employing filigree in quite a different

application from the Greeks, still made a by no means uninteresting use of it. However skilful the old masters of the eleventh and twelfth centuries may have been, however varied their technical knowledge, which is too much neglected by those of our own times, still, neither in technic nor design does their art compete with the beauty and elegance of the filigrees of the Etrurians and Greeks. The filigree of the Western goldsmiths consists of thicker wires, mostly of silver gilt, which are granulated on one edge by the file, as Theophilus describes it. Real grains, but much coarser than those of the antique, are employed only in certain places, mostly in the middle of flowers or rosettes. The strong threads are bent by pincers into the well known figures of Romanesque ornament, according to which they generally appear in serpentine lines and scrolls; these again throw off lateral branches, with rosettes in the middle. Such is at least the principal motive. This filigree ornament is not pierced or à jour, but soldered on to the flat surface, on crosses, chalices and many other objects, and commonly serves to enliven the space between the jewels which stand out in relief, and to give a pattern in ornament to the flat surface.

This is also the kind of filigree which Theophilus describes in its place in his *Schedula diversarum artium*. "Beat out gold into thin and long strips; of these take threads of different sizes and file them with an iron file till they have the appearance of grains." These wires are then beaten out on the anvil to any requisite thinness, so that the grains do not stand out and yet do not lose their shape; with these flowers of larger or smaller size are formed, and the spaces filled up between single jewels, which have also been set in a gold wire of the same character. They are then in a temporary way fastened with damp flour, and afterwards soldered over the fire.

During the Romanesque period, much more frequent use was made of the gold filigree than in the time either of Gothic art or of the Renaissance. This kind of work had then already found its way into the ornaments of the common people, following thus the usual course of fashion, which when rejected by the great world, takes refuge in the costume of the peasants. This has been the case with many a branch of art which fashion has abandoned, and the filigree work is no exception.

Benvenuto Cellini was acquainted with, and has given us a very exact description of the filigree process, though he says himself that he never had much to do with it. It was no longer the fashion in his time, but was much in vogue as an ornament of the peasantry. He speaks also of the best filigree-worker of his time, the goldsmith Piero di Nino, as an artist who worked only for the ornaments of the country-people. It was especially, says Cellini, the rich peasants of the Tuscan plains, who made their wives presents of certain girdles or sashes of velvet, with clasp and tongue, about half a yard in length, thickly set with small spangles. The clasp and tongue were of elegant shape and entirely made of delicate silver filigree. Piero might have made a pretty fortune by this trade, but on the dread of an

approaching famine, the state interdicted the wearing of such girdles by the peasants and others, and Piero, who was unacquainted with any other branch of the goldsmith's art, was deprived of all means of subsistence.

The Filigree work was also used, as Cellini says, for little crosses, ear-rings, boxes, buttons, lockets and many kinds of neck chains, just as it is in the present day. Our author considers it necessary that every one who works in filigree should understand drawing, which is very seldom the case now, and that more especially he should have a good knowledge of foliage and pierced work. He then continues his description, and recommends that, before the exact form is made in gold and silver sheets, to draw out the wire in three or four different thicknesses, to granulate the gold or silver, by pouring it when molten into a vessel filled with powdered charcoal, and for the soldering, to have in readiness the solder of silver and copper, mixed with borax and filed very fine, together with gum tragacanth. The wire is then bent with the pincers into the required shape, on a strong and well-polished copper plate, fastened by the gum on the above named gold or silver sheets, and the large and small grains afterwards added. They are then carefully sprinkled with the soldering powder but very delicately, and in the smallest possible quantity, in order that it may not look heavy and coarse on the wrong side. With regard to the heating of the oven in which the work is held freely suspended over a sheet of iron, great care must be taken, as too great a heat would make the wire lose its shape. After the soldering it is boiled in a mixture of cream of tartar and salt in order to get rid of the borax, or if it is of gold it is laid in strong vinegar. Lastly, adds Cellini, the charm of the work may be increased in several ways, by adding rosettes of pierced work tastefully distributed upon it.

If even in Cellini's time filigree work was an art but little practised, it became entirely lost in the succeeding periods. The fashionable goldworkers of our cities who ought to have kept their eye upon every thing truly

delicate, were either unacquainted with the technic, or no longer practised it, though its great charm consisted in its extraordinary delicacy. But the taste for the delicate had decreased from the second half of the seventeenth century and in this nineteenth century, even to the very last days it has become entirely dead. Very carefully however was the filigree work everywhere preserved among the people, though by no means with the same beauty of workmanship and design. When the great Exhibitions, which at the first only displayed works of modern industry, began by degrees to bring to light those national productions which had been unnoticed and unknown, it was then seen that this decorative art was still everywhere in practice, where the people themselves manufactured their own ornaments, from China and India, and throughout the whole of Asia and Africa, even to the furthest boundaries of Western Europe, to Norway and Portugal.

When we examine these productions, whether they come to us from parts of the world most distant from one another, or from the remotest recesses of the mountains they appear, at the first sight, to be all alike and to have no real difference. The same motives seem to be repeated everywhere again and again. And this is true to a certain extent, for all the figures are composed of curves and bent lines of the wire which returns upon itself and finds its support in its connexion with its counterpart. Almost everywhere too, the workmanship is à jour, in contrast to the antique filigree, and has no underlying plaque, and silver is used instead of gold, which probably arises from the fact that the ornaments being for the people must be of moderate price. It is very general also to find the threads twisted screwfashion, instead of being granulated or filed, by which means the same effect is produced, as the glitter falls on the full length of the threads. There are however many characteristic differences which allow us without any difficulty to recognise the birthplace of any piece of filigree work.

The conclusion in our next.

SPECIMENS OF ORNAMENTATION.



No. 1. German Romanesque. Ornament in the Germanic Museum in Nuremberg, from a drawing of Mr. A. Niedling in Aschaffenburg.